NOAA, NATIONAL WEATHER SERVICE, WEATHER FORECAST OFFICE

Miami, Florida 33165

http://weather.gov/southflorida

Warmer and Drier Than Normal May in South Florida

Warmest May on Record in Miami

June 1, 2010: High pressure predominated over the south Florida region during the past month, leading to a warmer and drier than normal May over most of South Florida. This region of high pressure (Figures 1 and 2) prevented significant large-scale low pressure troughs from affecting our local weather. These low pressure troughs typically bring periods of heavy rainfall during the early part of the wet season. However, this past month saw few of these systems, which meant that May rainfall over south Florida was primarily dependent on the collision of sea breezes over the interior portions of the peninsula. As a result, most coastal and metro areas along the Atlantic and Gulf coasts saw less rainfall than areas over the Everglades and Lake Okeechobee regions (Figure 3). The dominant high pressure pattern also prevented any late season cold fronts from entering our region. This, along with the absence of significant cloud cover and rainfall, contributed to warmer than normal temperatures, especially in the daily minimum temperatures.

Temperatures

May temperatures over south Florida averaged between 2 and 4 degrees above normal. While this may not seem like a significant departure from normal, it was enough to set or nearly set all-time recorded May average temperature records. Some May temperature statistics of note include:

- **Miami International Airport** registered its warmest May on record with an average temperature of 82.5 degrees, breaking the previous record of 82.1 set in 1995. The primary contributor to the record-breaking warmth in Miami was the overnight low temperature which also set a record for the warmest on record for May (76.4 degrees breaking previous record of 75.8 in 1995).

- **West Palm Beach** had its 3rd warmest May on record with an average temperature of 80.4 degrees. The record is 80.8 set back in 1995.

- **Fort Lauderdale** also had its 3rd warmest May on record with an average temperature of 81.0 degrees. The record is 81.8 set in 2008. Fort Lauderdale set its all time warmest average minimum temperature for May with a reading of 75.4 (previous record 74.9 in 2008).

- **Naples** had its 2nd warmest May on record with an average temperature of 80.8 degrees. The record is 81.1 set in 2003.

Precipitation

May was drier than normal over most of south Florida (Figure 3). Due to the lack of large-scale rainfall over the area, there was high variability in the monthly rainfall amounts. Location and inland penetration of sea breezes largely determined the rainfall patterns, with showers and thunderstorms favoring inland areas over coastal and near-coastal areas.

Over the east coast metro areas, May rainfall amounts were generally in the 2 to 4 inch range, with extremes ranging from as little as 1.28 inches in West Palm Beach to as much as 7.39 in nearby Palm Beach Gardens.

Over southwest Gulf coast areas, rainfall amounts were only in the 1 to 2 inch range, with areas right along the coast with even lower amounts. Marco Island only received 0.18 inches of rain for the entire month.

Over interior and Lake Okeechobee areas, similar large variability was noted. Areas west of the lake such as LaBelle and Ortona received between 6 to 7 inches of rain, while isolated areas east of the lake such as Canal Point received less than 1 inch.

Here are May 2010 rainfall totals, departure from normal and ranking for select locations:

Location (beginning of period of historical record)	**May 2010 Rainfall (inches)**	**Departure From Normal**	**Rank**
Miami (1855)	3.42	-2.10	
Fort Lauderdale (1912)	2.75	-3.58	
West Palm Beach (1888)	1.28	-4.11	12th driest
Naples (1942)	1.58	-2.63	
Miami Beach (1927)	2.59	-2.31	
Moore Haven (1918)	4.18	+0.48	
Palm Beach Gardens	7.39		
LaBelle (1929)	7.17	+3.26	14th wettest
Ortona	6.63		
Homestead General Apt	5.07		
Hialeah (1940)	4.03	-2.05	
Hollywood (1963)	3.35	-2.69	
The Redland (1942)	2.95	-3.39	
Canal Point (1941)	0.67	-3.94	Driest on record

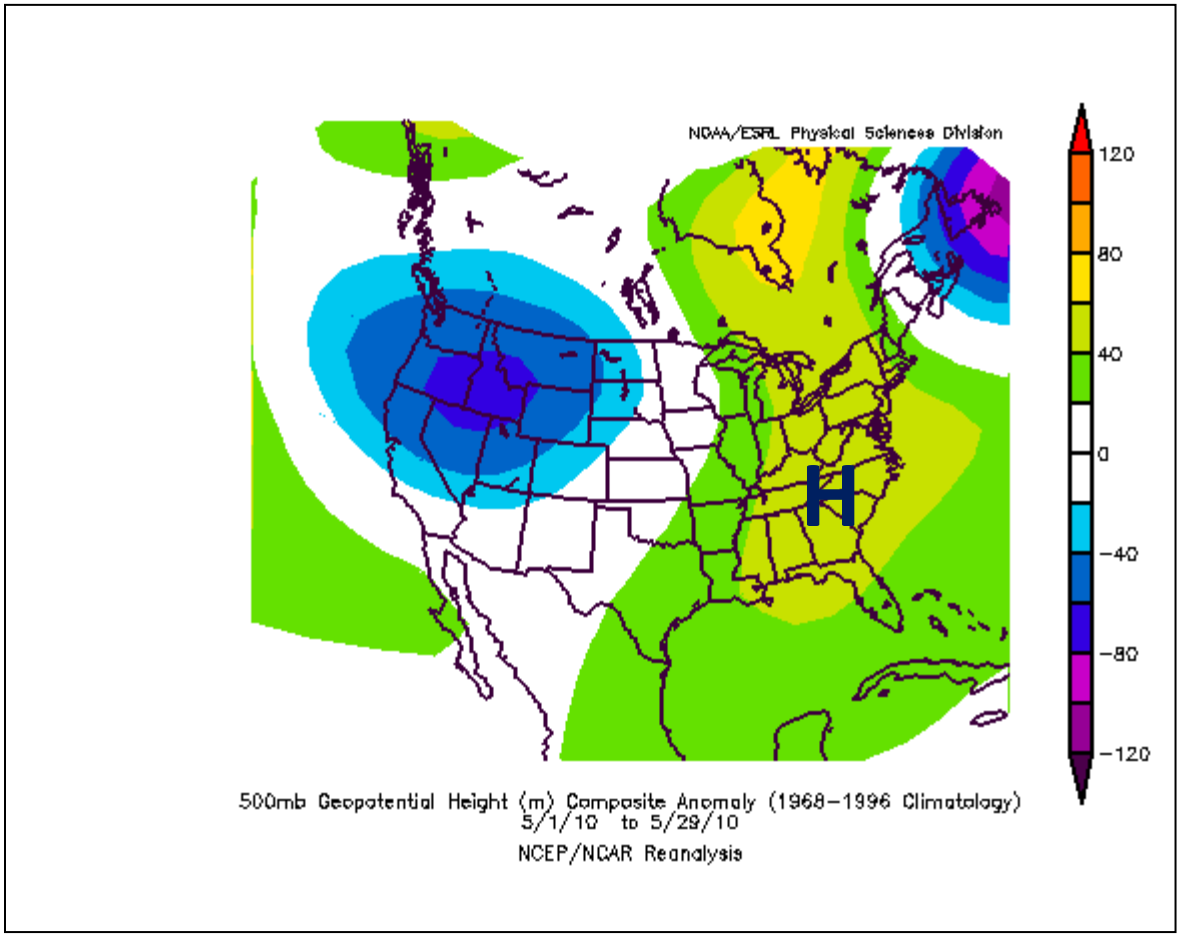
Marco Island	0.18		

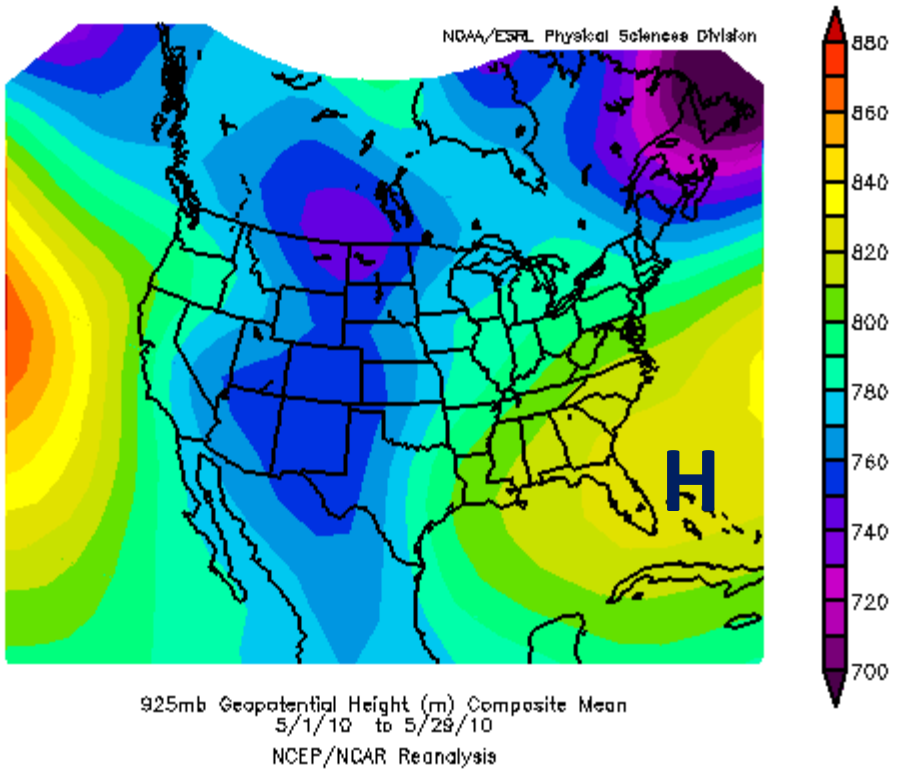
Outlook for June

The Climate Prediction Center's outlook for June calls for equal chances of near, above or below normal temperatures and precipitation. As last winter's El Niño continues to dissipate, large-scale weather patterns are not as easy to predict on a monthly time scale. It should be noted that June is on average the wettest month of the year, and past years in which El Niño has dissipated during the early summer have produced very wet Junes. Therefore, even a "normal" June will be quite wet across South Florida.

Along with the rain, June is known to have periods of severe weather, including hail, strong thunderstorm winds, tornadoes, flooding and lightning. Lightning is especially dangerous in June as children spend more time outdoors and are prone to lightning strikes. Please remember this simple lightning safety rule: When Thunder Roars, Go Indoors!

For the latest south Florida weather information, including the latest severe weather watches, advisories and warnings, please visit the National Weather Service Miami Forecast Office's web site at weather.gov/southflorida.





Figures 1 and 2: Mean 500 mb (mid atmospheric) and 925 mb (lower atmospheric) patterns during May 2010. Higher than normal pressures in the lower and mid levels over the eastern and southern U.S. and western Atlantic Ocean depicted by the H symbols on both maps.

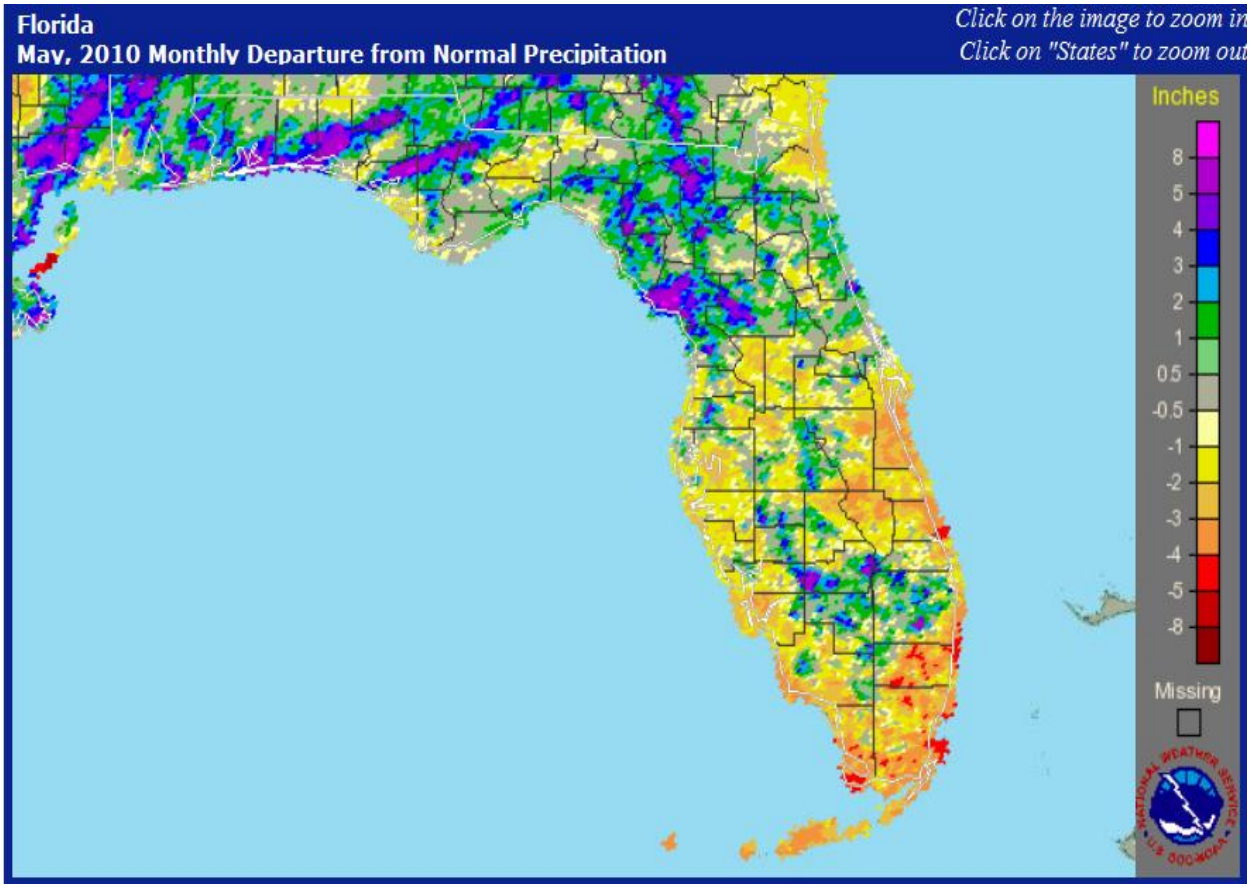


Figure 3: Rainfall departure from normal for May 2010. Yellow, orange and red colors denote areas of 1 to 4 inches below normal. Blue, green and purple colors denote areas of 1 to 4 inches above normal.